

ABSTRACT

In a multi-piece solid golf ball comprising a solid core, a mantle and a cover, the solid core is made of a rubber composition that includes (A) a base rubber containing a polybutadiene synthesized using a rare-earth catalyst, (B) a small amount of organic peroxide, (C) an unsaturated carboxylic acid and/or a metal salt thereof, (D) an organic sulfur compound and (E) an inorganic filler. The mantle is made of a thermoplastic resin composition. The cover is made of a material composed of a heated mixture of (F) an olefin/unsaturated carboxylic acid copolymer, an olefin/unsaturated carboxylic acid/unsaturated carboxylic acid ester copolymer, or a metal ion neutralization product thereof, (G) a polyurethane elastomer, and (H) an organic or inorganic basic compound. This construction provides the golf ball with an outstanding flight performance, excellent scuff resistance and a soft feel on impact, and minimizes the decline in rebound by the ball at low temperature.